

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for the production of a coated cottonseed product, comprising:

coating intact cottonseed with a coating composition comprising (a) a member material selected from the group consisting of water and one or more liquid feed products product(s), (b) a soluble phosphorous source and (c) a metal compound capable of interacting with said soluble phosphorous source to produce a coating on the cottonseed; and curing the coated cottonseed formed thereby.

2. (currently amended) The method of claim 1, wherein said liquid feed product is a member selected from the group consisting of condensed fermentation solubles, corn steep liquor, distillers solubles yeast paste, liquid whey and molasses.

3. (currently amended) The method of claim 2, wherein said liquid feed product is condensed fermentation solubles and said condensed fermentation solubles are condensed glutamic acid fermentation solubles.

4. (currently amended) The method of claim 1, wherein said soluble phosphorous source is a member selected from the group consisting of phosphoric acid, phosphorous acid, diammonium phosphate, monoammonium phosphate, alkali and alkaline metal phosphates, alkali and alkaline metal phosphonates.

5. (original) The method of claim 4, wherein said soluble phosphorous source is phosphoric acid.

6. (currently amended) The method of claim 1, wherein said metal compound is a member one or more compound(s) selected from the group consisting of alkaline earth metal compounds and aluminum compounds.

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7. (currently amended) The method of claim 6, wherein said metal compound is a member one or more salt(s) selected from the group consisting of calcium salts and magnesium salts.

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8. (currently amended) The method of claim 7, wherein said metal compound is a member selected from the group consisting of calcium carbonate, calcium oxide, calcium chloride, calcium sulfate, calcium hydroxide, calcium propionate, calcium acetate, magnesium oxide, magnesium chloride, magnesium sulfate, and magnesium hydroxide.

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9. (original) The method of claim 6, wherein said metal compound is aluminum oxide.

10. (original) The method of claim 8, wherein said metal compound is calcium carbonate or magnesium oxide.

11. (original) The method of claim 1, wherein said coating composition comprises from 10 to 30 wt% of (a), from 3 to 10 wt% of (b) and from 2 to 8 wt% of (c), based on total weight of the coated cottonseed product.

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12. (currently amended) The method of claim 1, wherein said coating composition further comprises one or more additives additive(s) selected from the group consisting of enzymes, amino acids, water absorbers, vitamins, minerals, direct fed microbials and mold inhibitors enzyme(s), amino acid(s), water absorber(s), vitamin(s), mineral(s), direct fed microbial(s) and mold inhibitor(s).

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13. (currently amended) The method of claim 1, wherein said coating step comprises: coating intact cottonseed with (c) said metal compound; forming a liquid solution of (a) said water or liquid feed product and (b) said soluble phosphorous source; and combining said liquid solution with the cottonseed coated with (c).

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14. (currently amended) A coated cottonseed product, comprising:  
intact cottonseed, and a cured coating prepared from a coating composition comprising:
- (a) a member material selected from the group consisting of water and one or more liquid feed products product(s), (b) a soluble phosphorous source and (c) a metal compound that interacts with said soluble phosphorous source to form a coating on said cottonseed.
15. (currently amended) The product of claim 14, wherein said liquid feed product is a member selected from the group consisting of condensed fermentation solubles, corn steep liquor, distillers solubles yeast paste, liquid whey and molasses.
16. (currently amended) The product of claim 15, wherein said liquid feed product is condensed fermentation solubles and said condensed fermentation solubles are condensed glutamic acid fermentation solubles.
17. (currently amended) The product of claim 14, wherein said soluble phosphorous source is a member selected from the group consisting of phosphoric acid, phosphorous acid, diammonium phosphate, monoammonium phosphate, alkali and alkaline metal phosphates, alkali and alkaline metal phosphonates.
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18. (original) The product of claim 17, wherein said soluble phosphorous source is phosphoric acid.
19. (currently amended) The product of claim 14, wherein said metal compound is a member a compound selected from the group consisting of alkaline earth metal compounds and aluminum compounds.
20. (currently amended) The product of claim 19, wherein said metal compound is a member one or more salt(s) selected from the group consisting of calcium salts and magnesium salts.

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21. (currently amended) The product of claim 20, wherein said metal compound is a member selected from the group consisting of calcium carbonate, calcium oxide, calcium chloride, calcium sulfate, calcium hydroxide, calcium propionate, calcium acetate, magnesium oxide, magnesium chloride, magnesium sulfate, and magnesium hydroxide.

22. (original) The product of claim 19, wherein said metal compound is aluminum oxide.

23. (original) The product of claim 21, wherein said metal compound is calcium carbonate or magnesium oxide.

24. (original) The product of claim 14, wherein said coating composition comprises from 10 to 30 wt% of (a), from 3 to 10 wt% of (b) and from 2 to 8 wt% of (c), based on total weight of the coated cottonseed product.

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25. (currently amended) The product of claim 14, wherein said coating composition further comprises one or more additives selected from the group consisting of enzymes, amino acids, water absorbers, vitamins, minerals, direct fed microbials and mold inhibitors enzyme(s), amino acid(s), water absorber(s), vitamin(s), mineral(s), direct fed microbial(s) and mold inhibitor(s).

26. (currently amended) A ruminant feed composition, comprising:  
intact cottonseed; and a cured coating prepared from a coating composition comprising:

(a) a member material selected from the group consisting of water and one or more liquid feed products product(s), (b) a soluble phosphorous source and (c) a metal compound that interacts with said soluble phosphorous source to provide a coating on said cottonseed, and

one or more conventional ruminant feed constituents constituent(s).

27. (currently amended) The composition of claim 26, wherein said liquid feed product is ~~a member~~ selected from the group consisting of condensed fermentation solubles, corn steep liquor, distillers solubles yeast paste, liquid whey and molasses.

28. (currently amended) The composition of claim 27, wherein said liquid feed product is ~~condensed fermentation solubles and said condensed fermentation solubles are~~ condensed glutamic acid fermentation solubles.

29. (currently amended) The composition of claim 26, wherein said soluble phosphorous source is ~~a member~~ selected from the group consisting of phosphoric acid, phosphorous acid, diammonium phosphate, monoammonium phosphate, alkali and alkaline metal phosphates, alkali and alkaline metal phosphonates.

30. (original) The composition of claim 29, wherein said soluble phosphorous source is phosphoric acid.

31. (currently amended) The composition of claim 26, wherein said metal compound is ~~a member~~ a compound selected from the group consisting of alkaline earth metal compounds and aluminum compounds.

32. (currently amended) The composition of claim 31, wherein said metal compound is ~~a member~~ one or more salt(s) selected from the group consisting of calcium salts and magnesium salts.

33. (currently amended) The composition of claim 32, wherein said metal compound is ~~a member~~ selected from the group consisting of calcium carbonate, calcium oxide, calcium chloride, calcium sulfate, calcium hydroxide, calcium propionate, calcium acetate, magnesium oxide, magnesium chloride, magnesium sulfate, and magnesium hydroxide.

34. (original) The composition of claim 31, wherein said metal compound is aluminum oxide.

35. (original) The composition of claim 33, wherein said metal compound is calcium carbonate or magnesium oxide.

36. (original) The composition of claim 26, wherein said coating composition comprises from 10 to 30 wt% of (a), from 3 to 10 wt% of (b) and from 2 to 8 wt% of (c), based on total weight of the coated cottonseed product.

37. (currently amended) The composition of claim 26, wherein said coating composition further comprises one or more additives additive(s) selected from the group consisting of ~~enzymes, amino acids, water absorbers, vitamins, minerals, direct fed microbials and mold inhibitors~~ enzyme(s), amino acid(s), water absorber(s), vitamin(s), mineral(s), direct fed microbial(s) and mold inhibitor(s).

Claims 38-47 (canceled).

Claims 48-57 (canceled).

--58. (New) A method comprising:

administering to livestock a ruminant feed composition comprising:  
intact cottonseed, and a cured coating prepared from a coating composition comprising:

(a) condensed glutamic acid fermentation solubles, (b) a soluble phosphorous source and (c) a metal compound that interacts with said soluble phosphorous source to provide a coating on said cottonseed, and  
one or more conventional ruminant feed constituents.

59. (New) The method of claim 58, wherein said soluble phosphorous source is a material selected from the group consisting of phosphoric acid, phosphorous acid, diammonium phosphate, monoammonium phosphate, alkali and alkaline metal phosphates, alkali and alkaline metal phosphonates.

60. (New) The method of claim 58, wherein said soluble phosphorous source is phosphoric acid.

61. (New) The method of claim 58, wherein said metal compound is one or more compound(s) selected from the group consisting of alkaline earth metal compounds and aluminum compounds.

62. (New) The method of claim 58, wherein said metal compound is one or more salt(s) selected from the group consisting of calcium salts and magnesium salts.

63. (New) The method of claim 58, wherein said metal compound is selected from the group consisting of calcium carbonate, calcium oxide, calcium chloride, calcium sulfate, calcium hydroxide, calcium propionate, calcium acetate, magnesium oxide, magnesium chloride, magnesium sulfate, and magnesium hydroxide.

64. (New) The method of claim 58, wherein said metal compound is aluminum oxide.

65. (New) The method of claim 58, wherein said metal compound is calcium carbonate or magnesium oxide.

66. (New) The method of claim 58, wherein said coating composition comprises from 10 to 30 wt% of (a), from 3 to 10 wt% of (b) and from 2 to 8 wt% of (c), based on total weight of the coated cottonseed product.

67. (New) The method of claim 58, wherein said coating composition further comprises one or more additive(s) selected from the group consisting of one or more enzyme(s), amino acid(s), water absorber(s), vitamin(s), mineral(s), direct fed microbial(s) and mold inhibitor(s).